

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002083**Date Inspected:** 26-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

New Tower Shop:

The QA Inspector randomly observed ZPMC welder Xu Yan ID Number 052917, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-T-3221-B-U3c-S-1, to weld the fill pass in Weld Joint (WJ) SSD1-SA16F/G-88B on Tower Diaphragm Sub-Assembly SA16(E) to p149(E). The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 510 amps, 30 volts with a travel speed of 410 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Heat Straightening Personnel utilizing hand torches with rosebuds, to perform heat straightening operations per HSR1(T)-260 [p228(W)] and HSR1(T)-332 [p58(S)].

Bay 1 OBG:

The QA Inspector performed Visual Inspection on the welds attaching the closed ribs to Deck Plate Assembly DP079-001 WJ's 001 through 005, and recorded the results of the Visual Inspection data of WJ's 001 through 010 (ribs U-88, U-84, U-154, U-155 and U-137) on a separate spreadsheet.

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Bay 7 OBG:

The QA Inspector randomly observed ZPMC welder Huang Xin Lan ID Number 044780, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-L2c-S-1, to weld the fill pass on Floor Beam Diaphragm Sub-Assemblies FB003-056-001 and FB003-055-006. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 530 amps, 30.7 volts with a travel speed of 438 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Welder Yang Xuhe ID Number 057795, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-P-2211-B-U2-FCM, to tack weld Floor Beam FB014-02 Diaphragm Flange (T=30 mm to T=12 mm) sections at WJ FB009-004-026. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed a ZPMC torch cutting operator utilizing a track mounted semiautomatic torch cutting apparatus, to cut the bevels in 30 mm/12mm thick abutting Floor Beam Diaphragm sections. The attached photograph provides additional detail.

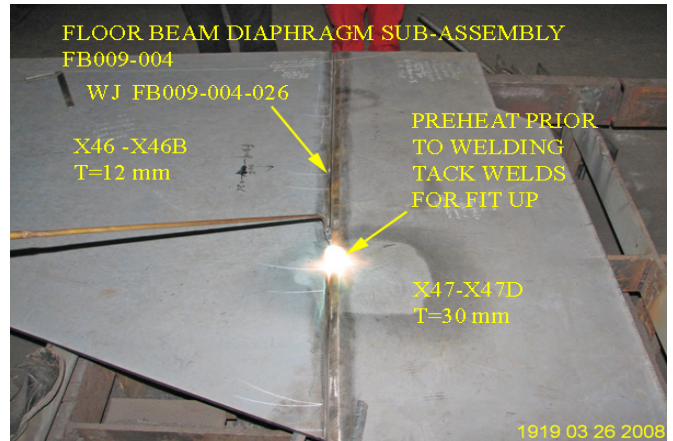
The QA Inspector randomly observed a ZPMC torch cutting operator utilizing a track mounted semiautomatic torch cutting apparatus, to cut the bevels on the edge of Floor Beam Sub-Assembly FB017-01. The attached photograph provides additional detail.

Bay 8 Tower:

The QA Inspector randomly observed ZPMC welder Xu Yan ID Number 052917, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass in WJ ESD1-SA226-10B on Tower Diaphragm Sub-Assembly SA226(E) to p407(E). The QA Inspector randomly observed ZPMC CWI Xu Bing monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 608 amps, 30.2 volts with a travel speed of 476 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer